Variation. The sixteen hundred shells of V. piscinalis from Lake Ontario contained in the collections of the Royal Ontario Museum of Zoology belong in the writer's opinion to the typical form of V. piscinalis, although series of the European varieties are lacking for comparison. Thirty-five of the largest specimens in this collection were selected and measured, with the following results: Number of whorls, average  $3\frac{3}{4}$ , extremes  $3\frac{1}{2}$  and  $4\frac{1}{4}$ ; length, average 5.0 mm., extremes 4.0 and 6.1; breadth, average 5.2 mm., extremes 4.5 and 6.0. In most instances the breadth is equal to, or greater than, the length. These figures differ slightly from those given by Ellis in "British Snails" 1926, p. 87:5 or 6 whorls, breadth 5 to 7 mm., height slightly more. The variation in the Lake Ontario shells is noticeable but small with respect to the elevation of the spire, size of umbilicus and the sculpture (malleation).

Mr. F. C. Baker noted (in letter) that there was considerable variation in his lot of shells.

## SUMMARY

- 1. Valvata piscinalis (Müller), which was first reported from Lake Ontario in 1898, now has a wide range in that lake, and may be spreading into Lake Erie.
- 2. Judging by the number of dead shells washed up, this species at Toronto has greatly prospered during the last twenty-four years, so that now it comprises about one-quarter of the total molluscan population of protected parts of Lake Ontario at this city.
  - 3. The details of its introduction are unknown.
  - 4. Only the typical form of V. piscinalis has been found.

## THURAL DALE FOSTER

(September 27, 1897—June 6, 1936)

Thural Dale Foster entered the University of Illinois as a graduate student in the summer of 1929. He had taught for five years in the high schools of Lamoille, Cambridge, and Geneseo, Illinois, after receiving the Bachelor's degree from Shurtleff College in 1924. In September, 1929, he became a graduate assistant in zoology in the University of Illinois, a position which he held until his death on June 6, 1936, except for one year when an at-

tack of Hodgkin's disease, which ultimately caused his death, forced him to interrupt his studies. He was granted a Master's degree by the University in June, 1931, and the Ph.D. degree was conferred on him posthumously on June 8, 1936.

He early became interested in Mollusca and completed a number of life history and biological studies which gave evidence of his promise as a research worker. He spent the summers of 1931 and 1932 as Assistant Field Zoologist in the Illinois State Natural History Survey, working under the direction of Frank C. Baker on a survey of the land mollusks of Illinois.

His courage and intense interest in research are reflected in the spirit with which he continued his work after being stricken with an incurable affliction. He is survived by his wife, Frances Claytor Foster.

A list of his published papers is appended.

Foster, T. Dale, 1931

Observations on the life history of a fingernail shell of the genus Sphaerium. (Abstract). Trans. Ill. St. Acad. of Sci., 24(2): 165–166.

<del>-----,</del> 1932

Observations on the life history of a fingernail shell of the genus Sphaerium. *Jour. Morph.*, 53(3): 473–497.

\_\_\_\_\_, 1933

Shell injuries of land mollusks. Trans. Ill. St. Acad. of Sci., 26(2): 131.

Foster, T. Dale, and William C. Van Deventer, 1933

A comparative study of river, pool and pond communities, with special reference to the Sphaeriids. (Abstract). Trans. Ill. St. Acad. of Sci., 26(2): 132.

Foster, T. Dale, 1936

Biology of a land snail, Polygyra thyroides (Say). Printed abstract of Ph.D. thesis. 13 pages.

\_\_\_\_\_, 1936

Size of shell in land snails of the genus Polygyra with particular reference to major and minor varieties. *Amer. Mid. Nat.*, 17(6): 978-982.

\_\_\_\_\_, 1937

Productivity of a land snail, Polygyra thyroides (Say). *Ecol.*, 18(4): 545-546.

Van Cleave, H. J., and T. Dale Foster, 1937

The seasonal life history of a land snail, Polygyra thyroidus (Say). The Nautilus, 51(2): 50-54.

H. J. VAN CLEAVE, University of Illinois.